

claim 19.

23. Prokaryotic or eukaryotic cells which are transformed with the DNA structures of claim 20.

24. Prokaryotic or eukaryotic cells which are transformed with the DNA structures of claim 21.--

Remarks

With entry of the above amendment, claims 7, 8, and 19-24 are pending, claims 7 and 8 having been withdrawn from consideration. Applicants respectfully point out that the substance of the amended claims are fully supported by the specification. Support for the DNA structure of claim 19 may be found throughout the specification, for example, Figure 1; page 3, second paragraph; and claims 1 and 2 as originally filed. Additional support for claim 19, and for the DNA structures of claim 20 and 21, may be found on page 4, paragraph 2 and lines 20-28; Examples 1 and 2, spanning pages 5-7; and claims 3, 4, and 7, as originally filed. Support for the corresponding host cells of claims 22-24 may be found on page 4, line 26; Examples 1 and 2; and claims 5 and 6 as originally filed, among other places.

In Item 1 of the Office Action dated September 1, 1998, the Office indicates that the publications listed on PTO 1449, filed September 14, 1995, have not been considered. Applicants have attached duplicate copies of these references as requested by the Office. In preparing these copies, Applicants discovered a typographical error in the PTO 1449. Specifically, the *Irmiere and Gibson* reference n

page 2 should be a duplicate of the *Immiere et al.* reference on pag 4. The correct citation is: *Immiere, A. and Gibson, W., J. Virol.* 56(1):277-83 (1985).

Applicants note that in Item 2, the Office makes final the restriction requirement issued January 21, 1998, this requirement having been traversed by the Applicants in Paper No. 6, filed June 19, 1998.

In Item 3, the Office rejects claims 5 and 17-18 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, the Office contends that recitation of "a fragment equivalent thereto," in claim 17 is vague and unclear. Applicants respectfully point out that claim 17 has been canceled and the point is moot.

The Office further contends that the recitation of "HindIII R fragment from the genome of human cytomegalovirus strain AD169" is vague and requests that Applicants refer to a figure or sequence to describe the intended HindIII R fragment.

Applicants note that the upper portion of Figure 1 shows HindIII and EcoRI restriction maps of the HCMV genome. The lettered boxes on the top row correspond to various HindIII fragments. The expanded bottom portion of Figure 1 presents a more detailed map of the HindIII R fragment. This expanded view shows additional restriction sites, the location of the mRNA encoding pp28 and the pp28 coding sequence, and indicates that the HindIII R fragment is 6.5 kB in length. Thus, claim 19 refers to the R fragment as "the 6.5 kB HindIII R fragment," as apparently suggested by the Office.

In Item 5, the Office rejects claims 5, 17, and 18 under 35 U.S.C. § 102(b) as

being anticipated by *Nowak et al.*, Virology 134: 91-102 (1984). *Nowak* presents a restriction map of the HCMV AD169 genome and identifies regions of the genome encoding 71 kDa and 65 kDa viral proteins.

The Office contends that *Nowak* teaches a cosmid clone, pCM 1058, which contains a HindIII fragment designated "R." (See Figure 1 on page 93.) The Office presumes that *Nowak's* fragment is the same as the HCMV AD169 HindIII R fragment claimed in claim 17 and contends that this fragment would inherently contain the SmaI fragment encoding pp28 and claimed in claim 18. Applicants respectfully point out that claims 5, 17, and 18 have been canceled and the rejection is moot with respect to these claims.

In contrast, newly-presented claim 19, and its dependent claim, claim 22, do not encompass the entire HindIII "R" fragment. Moreover, Applicants respectfully point out that *Nowak* nowhere identifies the DNA structure encoding HCMV pp28, or immunogenic parts thereof as presently claimed. The remaining claims refer to fusion proteins or other expression constructs which are nowhere discussed in *Nowak*. Consequently, Applicants respectfully submit that the instant claims are neither anticipated nor rendered obvious by *Nowak*.

In Item 6, the Office rejects claims 5, 17, and 18 under 35 U.S.C. § 102(a) as being anticipated by *Meyer et al.*, J. Virology 62:2243-50 (1988). The Examiner contends that *Meyer* teaches a nucleotide sequence of a portion of the HCMV AD169

LEE OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER LLP
1300 I STREET, N.W.
WASHINGTON, DC 20005
202 400 4000

HindIII R fragment which encodes the pp28 open reading frame. The Examiner also notes that the predicted open reading frame is flanked by SmaI endonuclease sites. In addition, the Examiner contends that *Meyer* teaches the prokaryotic expression of the pp28 gene in a lambda gt 11 vector.

Applicants first point out that claims 5, 17, and 18 have been canceled and the rejection is moot with respect to these claims. Moreover, Applicants respectfully point out that this application is a divisional of application Serial No. 07/746,161, filed August 14, 1991, which is a continuation of application Serial No. 07/313,553, filed February 22, 1989. The instant application, and all other applications in this chain, claim the benefit of foreign priority under 35 U.S.C. § 119, of application P 38 05 717.4, filed February 24, 1988, in the Federal Republic of Germany. In accordance with the 35 U.S.C. § 119, a certified copy of the German priority document was filed in the original 07/313,553 application on February 22, 1989. In order to demonstrate that the disclosure of the priority document is the same as the disclosure of the instant application, Applicants will provide a certified translation of the German priority document as soon as it becomes available.

The *Meyer* reference was accepted for publication on March 8, 1998, and published in July 1998 issue of the Journal of Virology. In contrast, the German priority document has an effective date of February 24, 1988. Consequently, the *Meyer* reference is not prior art with respect to this application and Applicants respectfully

request that *Meyer* be withdrawn as a reference.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed, including any fees required for an extension of time under 37 C.F.R. 1.136, please charge those fees to our Deposit Account No. 06-916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: *David S. Forman*
David S. Forman
Registration No. 33,694

Dated: November 30, 1998

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, DC 20005
202-400-4000